

Amendments to the Claims:

Claims 1-7 (canceled)

8. (currently amended) A method for storing plant non-image process signals for a plant having at least two operating states comprising:
- determining the current operating state of the plant;
 - applying at least one of a plurality of corresponding compression methods responsive to the current operating state to a set of non-image process signals, wherein said applying the at least one of the plurality of compression methods comprises:
 - acquiring non-image process signals at definable time intervals;
 - storing the non-image process signals first in a header buffer at an instant other than the instant corresponding to the current operating state;
 - examining the stored non-image process signals to ascertain whether a non-image process signal has remained within an amplitude band since it was last stored and how long ago it was last stored, wherein the examining step involves selecting the size of the amplitude to correspond to the current operating state of the plant;
 - determining the at least one of the plurality of compression methods to apply based on a result from examining the non-image process signals to minimize a loss of data significant for the non-image process signal; and
 - storing the non-image process signal as a part of a compressed signal set if it was last stored longer ago than a predefined time interval.

9. (currently amended) A method for storing plant non-image process signals according to Claim 8, the compression method further comprising:

acquiring non-image process signals at definable time intervals;

storing the non-image process signals first in a header buffer at an instant other than the instant corresponding to the current operating state;

examining the non-image process signals to ascertain whether a non-image process signal has left a further amplitude band since it was last stored and how long ago it was last stored, wherein the examining step involves selecting the size of the further amplitude band to correspond to the current operating state of the plant;

determining the at least one of the plurality of compression methods to apply based on a result from examining the non-image process signals to minimize a loss of data significant for the non-image process signal; and

storing the non-image process signal as a part of a compressed signal set matched to the current operating state only after it has left the further amplitude band.

10. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, wherein the acquiring step further comprises acquiring the non-image process signals simultaneously so that the set of non-image process signals corresponds to a particular instant.

11. (currently amended) The method for storing plant non-image process signals as claimed Claim 8, further comprising after the step of storing the set of compressed signals, determining that the operating state of the plant has changed to a second state, and applying a second compression method corresponding to the second operating state to a set of non-image process signals, wherein the second compression method examines the non-image process signals in accordance with an amplitude band corresponding to the second operating state of the plant.

12. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, the acquiring step further comprising selecting time intervals for acquiring non-image process signals according to the current operating state of the plant, and acquiring non-image process signals at definable time intervals.

13. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, applying at least one of the plurality of the corresponding compression methods step further comprises after the step of acquiring non-image process signals at definable time intervals, storing non-image process signals whose current values are in the region of a zero point with the value zero.

14. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, wherein at least one of the plurality of the corresponding compression methods further comprises monitoring the non-image process signals for violation of a limit value.

15. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, wherein in the step of applying at least one of the plurality of the corresponding compression methods for the current operating state to a set of non-image process signals, the applying step further comprises applying a compression method with a high compression rate for a plant operating state in which the non-image process signals to be stored have minimal change.

16. (currently amended) The method for storing plant non-image process signals as claimed in Claim 8, wherein in the step of applying at least one of the plurality of the corresponding compression methods for the current operating state to a set of non-image process signals, the applying step further comprises applying a compression method with a low compression rate for a plant operating state in which the non-image process signals to be stored have marked change.

17. (currently amended) A method for storing plant non-image process signals for a plant as claimed in Claim 8, wherein the plant comprises a turbine plant having at least two operating states, a start-up phase with markedly changing non-image process signals and a normal operating mode following the start-up phase during which the non-image process signals have less-marked change and more constant signals than in the start-up phase, wherein the step of determining the current operating state of the plant determines the start-up operating state; and wherein in the step of applying at least one of the plurality of the corresponding compression methods for the current operating state to a set of non-image process signals, the applying step further comprises applying a compression method with a low compression rate for start-up phase.

18. (currently amended) A method for storing plant non-image process signals for a plant as claimed in Claim 8, wherein the plant comprises a turbine plant having at least two operating states, a start-up phase with generally markedly changing non-image process signals and a normal operating mode following the start-up phase during which the non-image process signals have less marked change and more constant signals than in the start-up phase, wherein the step of determining the current operating state of the plant step determines the normal operating state; and wherein in the step of applying at least one of the plurality of the corresponding compression methods for the current operating state normal operation to a set of non-image process signals, the applying step further comprises applying a compression method with a high compression rate for normal operation phase.